REMARKS/ARGUMENTS

The specification has been amended for correction.

Claims 5-49 stand withdrawn.

Claim 2 has been amended.

Claims 1-4 stand rejected under 35 U.S.C. § 102 (b) over Hall U.S. Patent 6,253,906. Reconsideration of claims 1, 3, 4, and consideration of amended claim 2, in view of the following remarks is respectfully requested.

Hall '906 shows an accumulating conveyor 10, Fig. 1, including a series of adjacent suspended conveyor zones, each of which is shown at 12, Col. 2, lines 57-59. Each zone 12 includes a sensor 20 located adjacent its downstream end, Col. 3, lines 15-16. The series of conveyor zones 12 are placed adjacent each other in an end-to-end relationship so as to define a conveyor assembly for transporting a series of loads, Col. 3, lines 35-38. In Figs. 2-7, the series of loads are shown at 28, 30, 32, 34, 36 carried by zones 12a-12e, respectively, Col. 3, lines 44-45. Fig. 2 shows conveyor zones 12a-12e stopped in response to control module 24 of each zone, so as to maintain loads 28-36 stationary, in response to zones 12a-12e receiving an accumulate signal from a zone downstream therefrom, Col. 3, lines 47-50. When it is desired to resume operation of conveyor system 10, control module 24 of zone 12a provides a signal to its motor output 18 to operate zone 12a and to advance load 28 thereon, Fig. 3, Col. 3, lines 50-53. Operation of zone 12a continues for a predetermined time period while operation of zones 12b-12e is suspended, Col. 3, lines 54-55. Each control module 24 of a conveyor zone 12 continuously monitors the status of each control module 24 downstream therefrom through communication link 26, and when the downstream control module 24 sends a permission bit over communication link 26 to the upstream control module 24, the upstream control module 24 operates the zone motor output 18 to impart rotation to drive roller 16 and to thereby transport the load carried by the upstream conveyor zone 12, Col. 4, lines 30-38. If the zone of interest is in the accumulate mode, the control module 24 of the downstream conveyor zone 12 does not communicate a

permission bit over communication link 26, and operation of the upstream conveyor zone 12 is suspended until a permission bit is received, Col. 4, lines 38-43. Operation of conveyor system 12 functions to sequentially initiate operation of zones 12a-12e, Col. 4, lines 59-60. Sequential start-up of conveyor zone operation ensures that all zones do not initiate operation simultaneously which otherwise could result in a power drain on the electrical system and inducement of resonant or shock loading on the structure of conveyor system 10, Col. 4, lines 62-67. While the slight delay in start-up slightly decreases throughput of conveyor system 10, the delay is minimal and provides no significant effect on throughput, Col. 4, line 67-Col. 5, line 3. The delayed release of adjacent loads ensures the presence of a gap between adjacent pair of loads, which can be advantageous for other operations on conveyor system 10 when it is necessary to ensure each zone carries a single load, Col. 5, lines 3-7. Since the gap between adjacent loads increases as the loads are released as shown and described with respect to Figs. 2-7, there is also a time delay when the conveyor zones 12 are stopped in order to maintain the load stationary thereon, with the time delay being caused by the staggered or wave-type manner in which the leading edge of each load reaches the downstream sensor 20 of the zone on which the load is supported, Col. 5, lines 19-26.

For the Examiner's convenience, claim 1 is set forth below with supporting disclosure reference numerals and specification text citations inserted in parenthesis to facilitate review.

1. *A processing system (10) for processing a food product comprising first and second food product loading stations (12, 14), a conveyor (28) traversing serially through said first and second loading stations (12, 14), an accumulator (40) in series between said first and second loading stations (12, 14) and having an inlet (92) receiving said conveyor (28) from said first loading station (12) and having an outlet (94) delivering said*

> *conveyor (28) to said second loading station (14), said accumulator 40 enabling differential conveyor velocity at its said inlet (92) and said outlet (94) to enable differential conveyor velocity through said first and second loading stations (12, 14) to permit intermittent (Para. 20, line 20+) loading and nonloading of food product at first and second conveyor velocities, (Para. 20, line 2) respectively, said second conveyor velocity being greater (Para. 20, line 7) than said first conveyor velocity.*

Claim 1 requires first and second food product loading stations such as 12 and 14, a conveyor such as 28 traversing serially through such first and second loading stations, and an accumulator such as 40 in series between such first and second loading stations 12 and 14 and having an inlet such as 92 receiving the conveyor 28 from the first loading station 12 and having an outlet such as 94 delivering the conveyor 28 to the second loading station 14. Claim 1 requires that the accumulator 40 enable differential conveyor velocity at its inlet 92 and outlet 94 to enable differential conveyor velocity through the first and second loading stations 12 and 14 to permit intermittent (specification Para. 20, lines 20+) loading and nonloading of food product at the first and second conveyor velocities (specification Para. 20, line 2), respectively, the second conveyor velocity being greater than the first conveyor velocity. In contrast, Hall '906 does not disclose or suggest first and second food product loading stations (12 and 14), nor a conveyor (28) traversing serially through such first and second loading stations (12 and 14), nor an accumulator (40) in series between such first and second loading stations (12 and 14), having an inlet (92) receiving the conveyor (28) from the first loading station (12), and an outlet (94) delivering the conveyor (28) to the second loading station (14), nor an accumulator (40) enabling differential conveyor velocity at its inlet (92) and outlet (94) to enable differential conveyor velocity through the first and

second loading stations (12 and 14) to permit intermittent loading and nonloading of food product at first and second conveyor velocities, respectively, the second conveyor velocity being greater than the first conveyor velocity. Hall '906 discloses a series of conveyor zones in end-to-end relation with respective individual conveyors which may be stopped in response to an accumulate signal to provide an accumulate mode for a zone of interest and to enable sequential initiation operation of the zones. There is no disclosure, suggestion or even hint of the combination and limitations of claim 1 requiring the noted intermittent loading and nonloading of food product at first and second conveyor velocities. Consideration and allowance of claim 1 is respectfully requested.

Claim 2 has been amended. For the Examiner's convenience, claim 2 is set forth below with supporting disclosure reference numerals and specification text citations in parenthesis to facilitate review.

2. *The processing system according to claim 1 wherein:*

said system has a first mode (Para. 20, line 7; Para 22, line 19) wherein food product is loaded on said conveyor (28) at said first loading station (12) while said conveyor (28) is moving at said first conveyor velocity (Para 20, line 9), to provide a first segment (Para 20, line 9) of said conveyor (28) loaded with food product (Para 20, line 10), and when said first segment reaches said second loading station (14), said conveyor (28) is advanced through said second loading station (14) at said second conveyor velocity (Para 20, line 12) without food product loading by said second loading station (14, Para. 20, line 12);

said system has a second mode (Para. 20, line 13; Para 22, line 25) wherein said conveyor (28) is advanced through said first loading station (12) at said second conveyor velocity (Para. 20, line 14) without food product loading (Para 20, line 14), by said first loading station (12) to provide a second empty segment (Para 20, line 15) of said conveyor (28) unloaded with food product (Para. 20, line 15) and in series with said first segment (Para. 20, line 16), and when said second segment reaches said second loading station (14) said conveyor (28) is advanced through said second loading station (14) at said first conveyor velocity (Para. 20, line 18) with food product loading (12) by said second loading station (14, Para 20, line 19)

such that said conveyor (28) as it leaves said first loading station has a plurality of intermittent segments (Para. 20, line 20) comprising a first set of segments (Para. 20, line 20) comprising said first segments loaded with food product and a second set of empty segments (Para. 20, line 22) comprising said second egments unloaded with food product, said second segments being spaced by respective said first segments therebetween (Para. 20, line 23), and

such that said conveyor (28) as it leaves (Para. 20, line 24) said second loading station (14) has said second segments loaded with food product, in addition to said

first segments loaded with food product (Para. 20, line 25).

Claim 2 depends from claim 1 and is believed allowable for the reasons noted above. Furthermore, claim 2 requires that the system have a first mode (Para. 20, line 7; Para. 22, line 19) wherein the food product is loaded on the conveyor 28 at the first loading station 12 while the conveyor 28 is moving at the first conveyor velocity (Para. 20, line 9), to provide a first segment (Para. 20, line 9) of the conveyor 28 loaded with food product (Para. 20, line 10), and when the first segment reaches the second loading station 14, the conveyor 28 is advanced through the second loading station 14 at the second conveyor velocity (Para. 20, line 12) without food product loading by the second loading station 14 (Para. 20, line 12), and requires that the system have a second mode (Para. 20, line 13; Para. 22, line 25) wherein the conveyor 28 is advanced through the first loading station 12 at the second conveyor velocity (Para. 20, line 14) without food product loading by the first loading station 12 (Para. 20, line 14), to provide a second empty segment (Para. 20, line 15) of the conveyor 28 unloaded with food product (Para. 20, line 15) and in series with the first segment (Para. 20, line 16), and when the second segment reaches the second loading station 14 the conveyor 28 is advanced through the second loading station 14 at the first conveyor velocity (Para. 20, line 18) with food product loading by the second loading station 14 (Para. 20, line 19), such that the conveyor 28 as it leaves the first loading station 12 has a plurality of intermittent segments (Para. 20, line 20) including a first set of segments (Para. 20, line 20) including the first segments loaded with food product and a second set of empty segments (Para. 20, line 22) including the second segments unloaded with food product, the second segments being spaced by respective first segments therebetween (Para. 20, line 23), and such that the conveyor 28 as it leaves (Para. 20, line 24) the second loading station 14 has the second segments loaded with food product, in addition to the first segments loaded with food product (Para. 20, line 25). This combination is nowhere disclosed or even hinted at in Hall '906.

Claim 3 depends from claim 2 and is believed allowable for the reasons noted above. Furthermore, claim 3 requires that the first and second loading stations 12 and 14 simultaneously load food product on a single conveyor 28.

Claim 4 depends from claim 2 and defines a subcombination which is believed allowable.

It is believed that this application is in condition for allowance with claims 1-4, and such action is earnestly solicited.

Respectfully submitted,

ANDRUS, SCEALES, STARKE & SAWALL, LLP

Michael E. Taken
(Reg. No. 28,120)

100 East Wisconsin Avenue, Suite 1100
Milwaukee, Wisconsin 53202
(414) 271-7590